

III. Remarks

Claims 1-30 are pending in this application.

By this paper, Applicants are amending the specification to correct the typographical error identified by the Examiner in the outstanding action, as well as replacing several occurrences of the phrases “radially aligned” and “radially offset” with the phrases “circumferentially aligned” and “circumferentially offset” to thereby correlate both with the accepted meaning of “radial” and “circumferential” alignment and with the several views (e.g., Figs. 2A, 2B, 3, and 4). In order to more particularly point out and distinctly claim that which Applicant regards as his invention, by this paper, Applicant is canceling claims 1-11, 13, and 21-29; amending independent claim 30; amending claims 12 and 14-20 to now depend from claim 30; and adding new claim 31. Applicant notes that independent claim 30 as amended and new claim 31 recite limitations as to “contact surfaces”, “alignment”, “offset” and “overlap” as expressly disclosed in the specification at page 2, lines 27-29; at page 3, lines 25-27; at page 4, line 24 through page 5, line 1; and as shown in Figure 4. No new matter has been added to the application by virtue of this amendment. Reconsideration and further examination of claims 12, 14-20, 30, and 31 are respectfully requested.

Of the claims now remaining in the application, and noting again that claims 12 and 14-20 now depend from amended claim 30, claims 12, 15-19 and 30 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,758,545 (“Fevre”) alone or further in view of U.S. Patent No. 3,703,105 (“Milton”), while claim 20 stands rejected under 35 USC §103(a) as being unpatentable over Fevre in view of U.S. Patent No. 5,722,300 (“Burkhard”) alone or further in view of Milton, and claim 14 stands rejected under 35 USC §103(a) as being unpatentable over Fevre in view of U.S. Patent No. 6,389,923 (“Barton”), or over Fevre and Milton further in view of Barton. Applicant respectfully traverses.

Fevre is directed to a depth-adjustable steering column for a motor vehicle containing an inner tube 3 that slides into an outer tube 2, and a sheath 6 disposed between the tubes. In a first embodiment shown in Figures 2-4C, slots are cut in the sheath 6 to thereby define axially-aligned pairs of oppositely- and axially-extending

cantilevered tongues 7. Each tongue 7 includes an intermediate bend that is adapted to radially engage the outer surface of the inner tube 3, while the cantilevered tip of each tongue 7 is adapted to radially engage the inner surface of the outer tube 2. Due to the constant width of each tongue 7 (as clearly shown in Figures 2-4C, the relative contact width of each tongue's bend is equal to that of its tip.

Fevre's Figures 6 and 7 show a second embodiment wherein the sheath 23 has a scalloped configuration when viewed in radial cross-section, creating a like number of radially-projecting axially-extending edges 21,22 on the outer and inner surfaces of the sheath 23 which are in contact with the outer and inner and outer tubes 2,3, respectively. All outer and inner edges 21,22 are shown as being identical and equi-spaced about the circumference of the sheath 23, with the inner edges 21 being circumferentially-offset or "staggered" relative to the outer edges 22 (i.e., none of the outer and inner edges overlap in Fevre's last embodiment). The relative contact width of the outer and inner edges 21,22 of the second embodiment and the outer and inner tubes 2,3 are again shown as being roughly equal in Fevre's Figure 7.

Milton is directed to a collapsible shift tube assembly for a steering column featuring a "locking sleeve" with internal "tabs" and external "ribs" that are respectively received in slots defined in the inner and outer tube to thereby "prevent[] axially inward collapse of the shift tube assembly" and a "rigid assembly" (Milton, Abstract). More specifically, Milton's locking sleeve includes "three circumferentially spaced axially and radially inwardly extending tabs or projections 86, as shown in FIGS. 3 and 4", "are generally rectangular in shape", "are positioned at approximately the midpoint length of the locking sleeve 54", and are spaced 120° apart. These internal tabs 86 are received within complementary slots 56 defined in the inner tube ("upper member 50") (col. 5, ll. 10-22). Milton's locking sleeve further includes "a series of axially and radially outwardly extending projections or raised ribs 88" that are "generally rectangular in shape", "are formed at approximately the midpoint of the overall length of the locking sleeve 54", and "are circumferentially spaced approximately 120° apart" (col. 5, ll. 23-34). These raised ribs 88 are likewise received in complementary slots 74 defined in the outer tube ("lower

member 52”) (col. 6, ll. 20-26). Milton states that “the projections 86 and 88 by their reception within the slots 56 and 74, respectively, serve to normally prevent relative angular movement between the upper and lower members 50 and 52” (col. 6, ll. 33-37).

As best seen in Milton’s Figure 4, the preferred embodiment of Milton’s locking sleeve 54 also includes small, inwardly- and outwardly- staggered “spacer ribs 92” or “crush ribs 92”:

a plurality of circumferentially spaced spacer ribs 92 which extend axially for substantially the entire length of the sleeve 54 and which project radially outwardly from the outer periphery 90 of the sleeve 54 at positions immediately adjacent the tabs 86. Crush ribs 92 also extend radially inwardly from the inner periphery 87 of the sleeve at circumferentially spaced positions adjacent the opposite sides of the impressions 88, as shown in FIG. 4.

(Milton, col. 5, ll. 36-45). Upon assembly, Milton teaches that:

the spacer ribs 92 projecting radially inwardly from the inner periphery 87 of the sleeve 54 and radially outwardly from the outer periphery of the sleeve 54 are engaged and deformed by the upper and lower members 50 and 52 and provide a firm and rigid engagement between the sleeve 54 and the upper and lower members 50 and 52.

(Milton, col. 6, ll. 27-33, emphasis added). Upon collapse, knife edges 76,58 on the slots 74,56 shear the tabs 86 and ribs 88 to thereby permit the upper and lower members 50,52 to move axially relative to one another while “the locking sleeve 54 remains engaged with the upper end portion 72 of the lower member” (col. 6, l. 55 to col. 7, l. 14).

In contrast, independent claim 30 recites a telescoping jacket assembly that includes a flexible sleeve including a generally-cylindrical wall disposed between the inner surface of the outer jacket and the outer surface of the inner jacket, wherein the sleeve includes a plurality of internal ribs protruding from the wall ~~and~~ to define internal contact surfaces on the sleeve in engagement with the outer surface of the inner jacket and which do not extend through the outer surface of the inner jacket to thereby radially space the wall from the outer surface of the inner jacket and allow telescoping movement of the inner jacket relative to the sleeve and in contact with the at least two internal ribs of the sleeve, wherein the sleeve includes a plurality of

first and second external ribs protruding from the wall to define external contact surfaces on the sleeve in engagement with the inner surface of the outer jacket to thereby space the wall from the outer jacket, and each of the first plurality of external ribs being circumferentially aligned with a respective internal rib, each of the second plurality of external ribs being circumferentially offset completely from each immediately proximate internal rib. Simply stated, neither Fevre nor Milton teach or suggest the internal and external rib configuration recited in independent claim 30. Further, Applicant respectfully submits that the tertiary references to Burkhard and Barton fail to cure the aforementioned deficiencies of Fevre and Milton.

For at least the foregoing reasons, Applicant respectfully submits that claims 12, 14-20, 30, and 31 are patentable over the prior art of record in this application. Accordingly, a notice of allowability with respect to claims 12, 14-20, 30, and 31 is courteously solicited.

Respectfully submitted,

03/22/2010

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CIMS 483-02-19
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